

## **Relationships Between Marine Bird and Waterfowl Assemblage Composition and Gradients of Human Influence in Nearshore Puget Sound**

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Puget Sound is used by approximately 100 marine bird and waterfowl species, several of which have significantly declined in abundance over the past several decades. Causes of these declines are poorly understood, including the potential effects of human activity in the nearshore. This study combines several existing data sets (aerial bird surveys, land cover classifications, and shoreline inventories, etc.) to document changes in marine bird and waterfowl assemblages along gradients of human influence in the adjacent terrestrial environment. In addition to summarizing the overall patterns of species richness, abundance, and occurrence at several spatial scales in Puget Sound (e.g., basin, subbasin, beach segment), analysis of land cover and shoreline structure data are used to characterize various taxa in terms of their degree of association with urbanization.